

**FINAL REPORT**

**for the**

**SYMPOSIUM ON THE SOCIAL IMPLICATIONS  
OF ECOSYSTEM MANAGEMENT**

by

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University of Idaho

Dr. Gary E. Machlis  
University of Idaho  
June 15, 1995

## Preface

The following report was prepared by University scientists through cooperative agreement, project science staff, or contractors as part of the ongoing efforts of the Interior Columbia Basin Ecosystem Management Project, co-managed by the U.S. Forest Service and the Bureau of Land Management. It was prepared for the express purpose of compiling information, reviewing available literature, researching topics related to ecosystems within the Interior Columbia Basin, or exploring relationships among biophysical and economic/social resources.

This report has been reviewed by agency scientists as part of the ongoing ecosystem project. The report may be cited within the primary products produced by the project or it may have served its purposes by furthering our understanding of complex resource issues within the Basin. This report may become the basis for scientific journal articles or technical reports by the USDA Forest Service or USDI Bureau of Land Management. The attached report has not been through all the steps appropriate to final publishing as either a scientific journal article or a technical report.

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## INTRODUCTION

This final report describes the results of an evaluation of the *Symposium on the Social Implications of Ecosystem Management* (referred to as the symposium). The symposium was sponsored by the Social Assessment Team of the Interior Columbia Basin Ecosystem Management Project (ICBEMP). It was held on Saturday, April 29, 1995. It was coordinated by Kathy L. Rose, graduate student, Forest Resources, University of Idaho.

The objectives of the symposium were to:

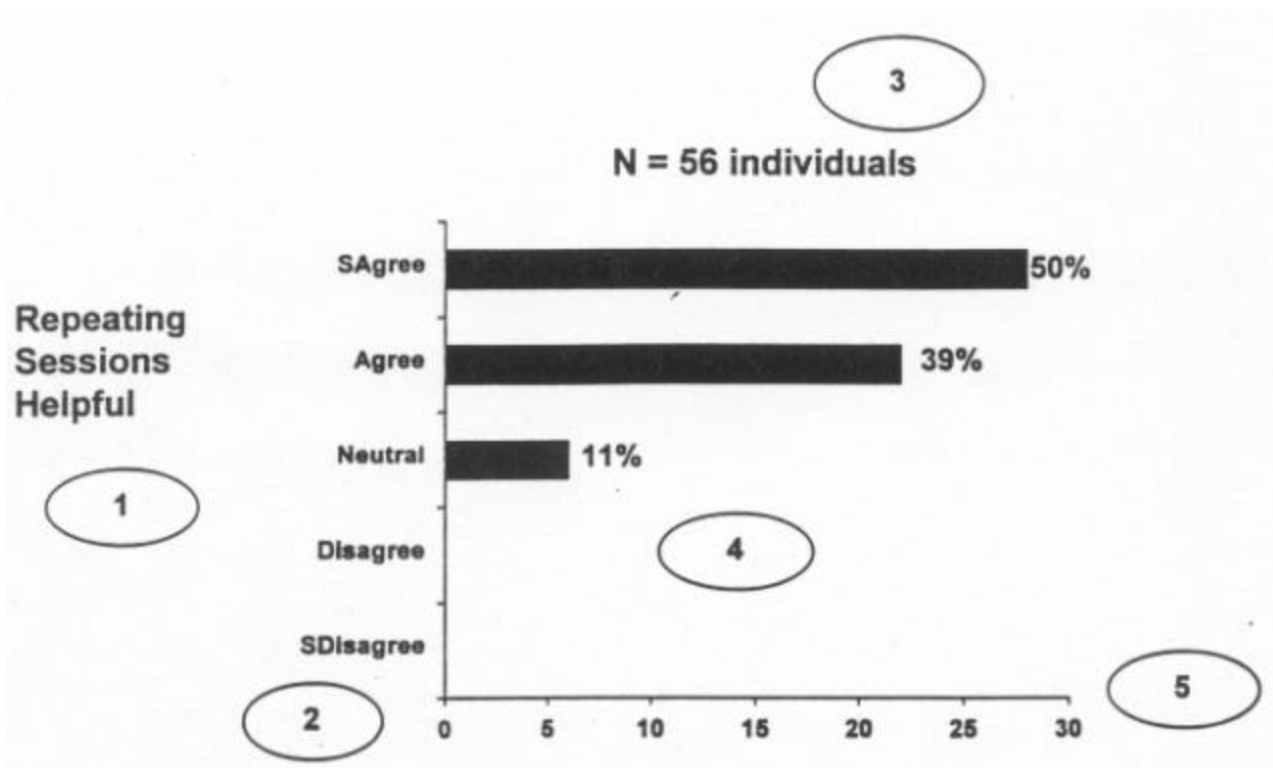
- 1 .     Exchange ideas and research results between researchers and the public.
2.     Demonstrate how research results apply to the public's practical needs.
3.     Provide the public with an opportunity for questions and discussion on

the larger planning effort of the ICBEMP, and the social implications of ecosystem management.

The evaluation was designed to learn whether a symposium is a useful forum to communicate ecosystem management to the public. The following is a summary of the evaluation results.

The Methods section discusses the procedures and limitations of the evaluation. A Results section follows and includes a summary of comments. A Discussion section examines whether the objectives of the symposium were met. Another section, Recommendations, suggests ways in which the ICBEMP may improve future symposia. The final section, Evaluations, includes the attendees' unedited comments. An Appendix contains copies of the registration packet material: agenda, abstracts, panel presenter list, evaluation form, and map.

All of this report's graphs resemble the example on the following page. The circled numbers refer to explanations following the graph.



**Number of Respondents**  
**Figure 15**

- 1 The statement attendees were asked to evaluate.
- 2 The responses describing whether the attendees:
  - SAgree = Strongly agreed with the statement
  - Agree = Agreed with the statement
  - Neutral = Neither agreed nor disagreed with the statement
  - Disagree = Disagreed with the statement
  - SDisagree = Strongly disagreed with the statement
- 3 The "N" shows the number of attendees responding to that particular statement.
- 4 Percentage of respondents that chose a particular category.
- 5 The number of respondents.

## **METHODS**

Evaluation forms were distributed in registration packets as attendees arrived at the opening session. Included in this packet were the agenda, abstracts of each session, map of the conference site, and the evaluation form. During the opening session, attendees were asked to fill out the evaluation form at the end of the day (or when they left the symposium). They were asked to return the completed evaluation form and place it in a box at the Registration Desk. For those who arrived after the opening session, packets were left on the Registration Desk with a sign inviting latecomers to take them upon arrival.

Panel moderators reminded attendees to fill out their evaluations, and at the closing session, attendees were reminded again.

### **Sample size, missing data, and reporting errors**

A total of 58 evaluations were returned. Occasionally, a respondent may not have answered a statement/question or may have answered unclearly or incorrectly. Unanswered statements/questions create missing data and cause the number ("N") in the sample to vary from figure to figure.

### **Limitations**

This evaluation study has limitations which should be considered when interpreting the results. These include:

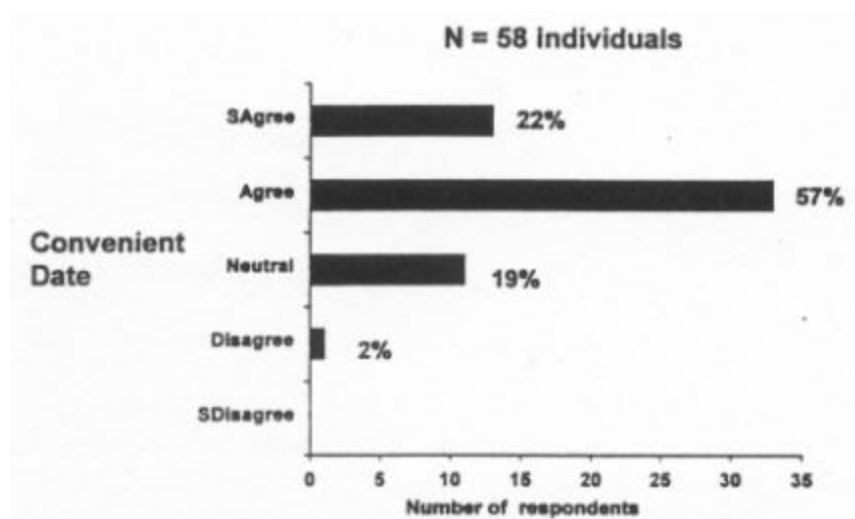
- 1) Some panel presenters (scientists) were given evaluation forms, as well as the attendees (the public). Though some, but not all, presenters did attend sessions, the evaluations were meant to measure attendee response.
- 2) Not all the attendees participated in the entire symposium; the evaluation does not separate "part-time" participants from those who stayed for the entire symposium.

## RESULTS

Approximately 80 evaluations were distributed; a total of 58 were returned.

### Schedule and Location

Participants were asked if the date was convenient. Fifty-seven percent agreed that the date was convenient, while 22% strongly agreed and 19% were neutral (see Figure 1). Of those who responded, 49% agreed that there was adequate notification of the event, 31 % strongly agreed, and 10% disagreed (see Figure 2). Attendees were asked if Spokane was an appropriate location for the symposium. A majority agreed (48%), but some (4%) either disagreed or strongly disagreed (see Figure 3).



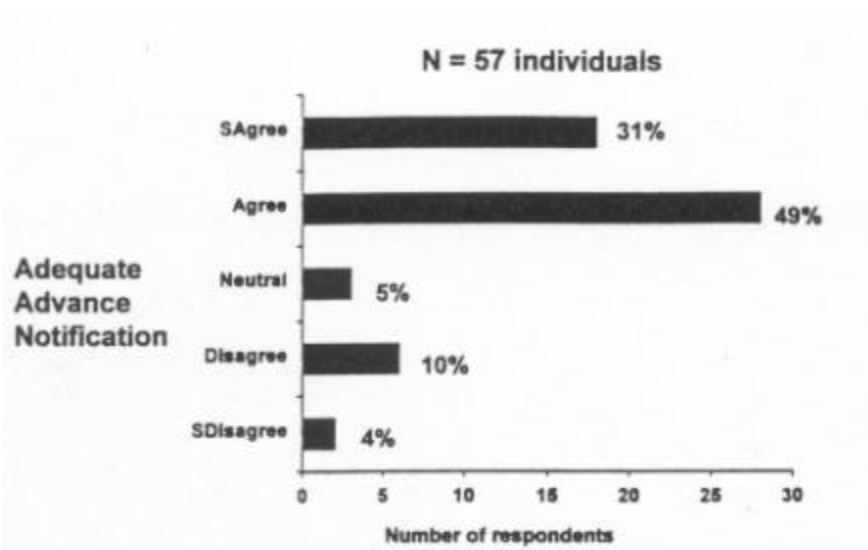


Figure 2

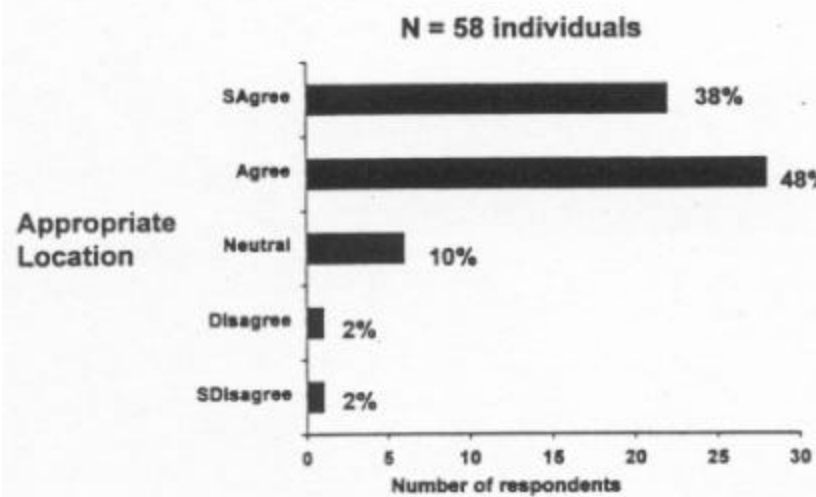


Figure 3



## Organization

A majority of the attendees (53%) strongly agreed that the symposium was well organized (see Figure 4). When asked how attendees felt about the adequacy of meeting room space, 87% of the respondents either strongly agreed or agreed that the meeting rooms were adequate (see Figure 5). Most found that they could hear the presentations (see Figure 6) and that the registration packets were helpful (see Figure 7).

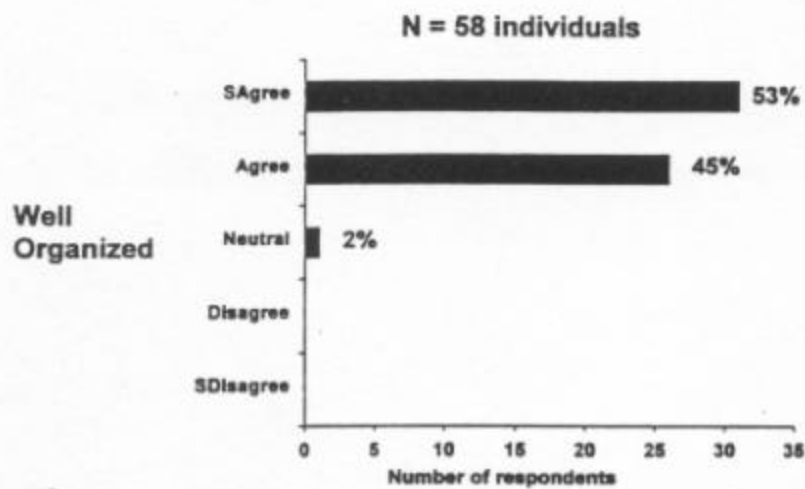


Figure 4

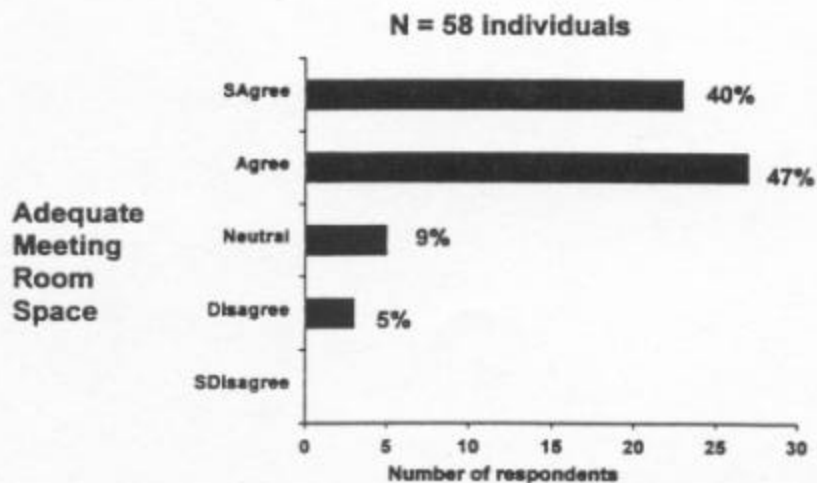
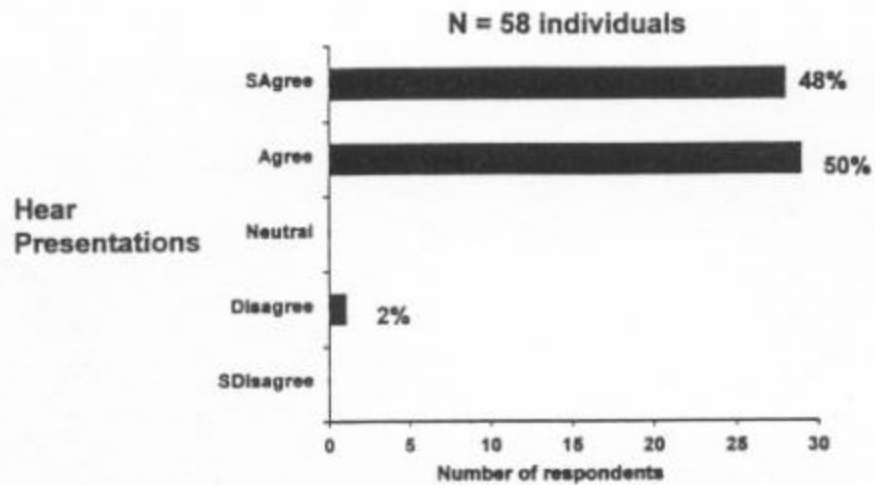
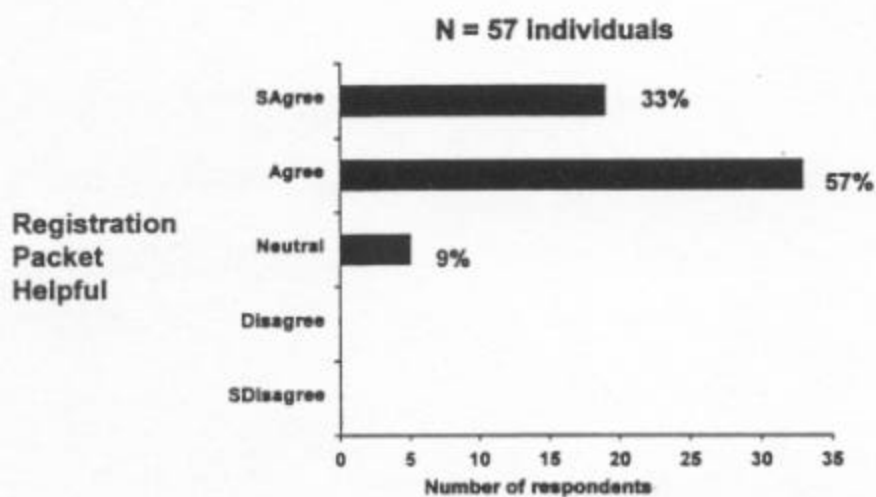


Figure 5



**Figure 6**



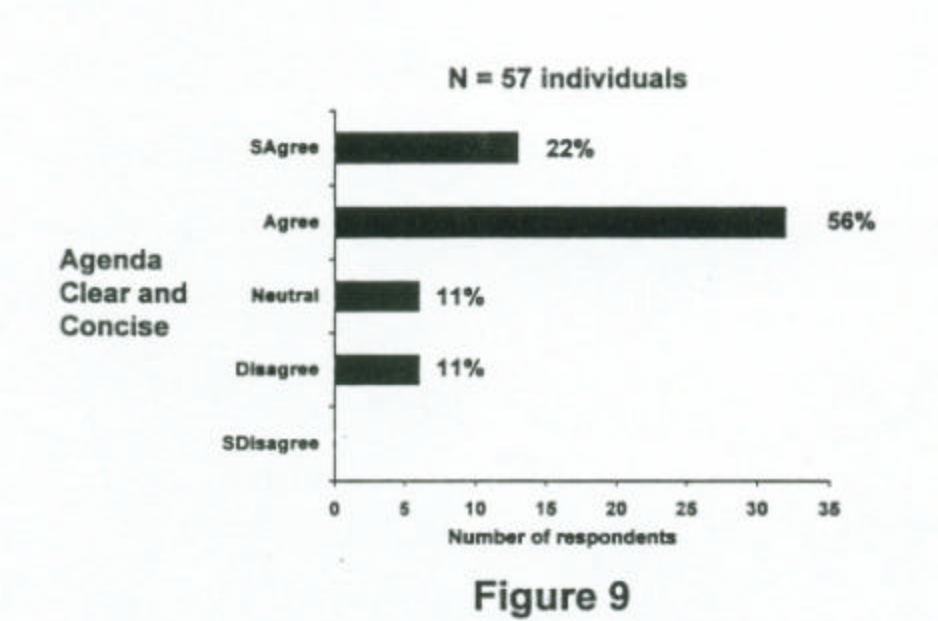
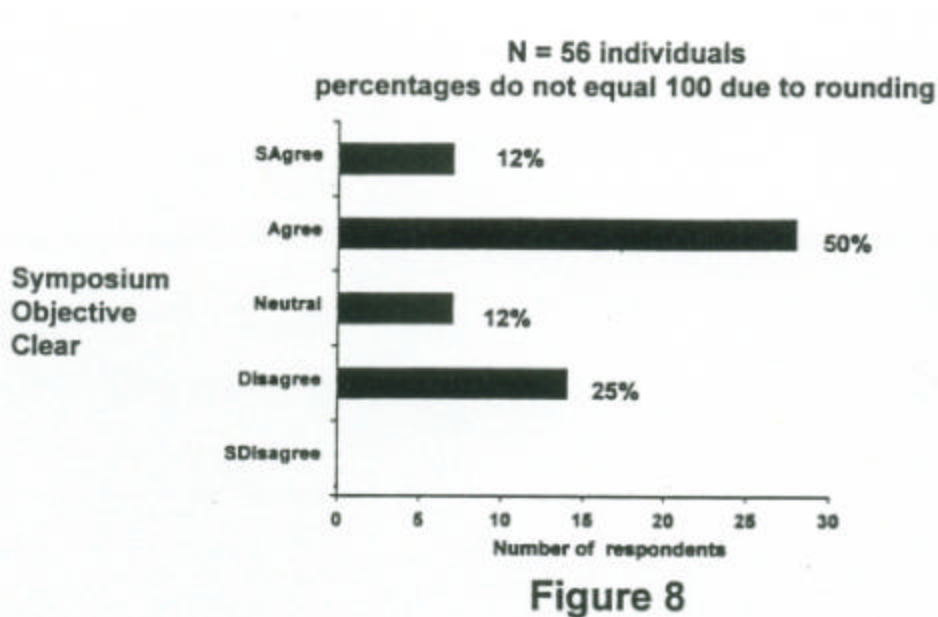
**Figure 7**

## Content

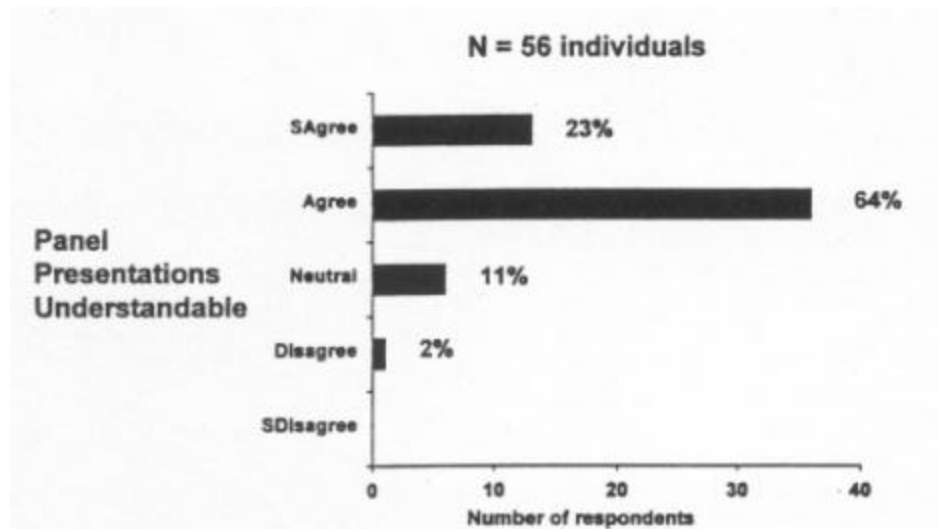
When asked about the objective of the symposium, 62% either strongly agreed or agreed that the objective was made clear, while 37% were either neutral or disagreed with this statement (see Figure 8).

Figure 9 illustrates how respondents felt about the clarity and conciseness of the symposium's agenda.

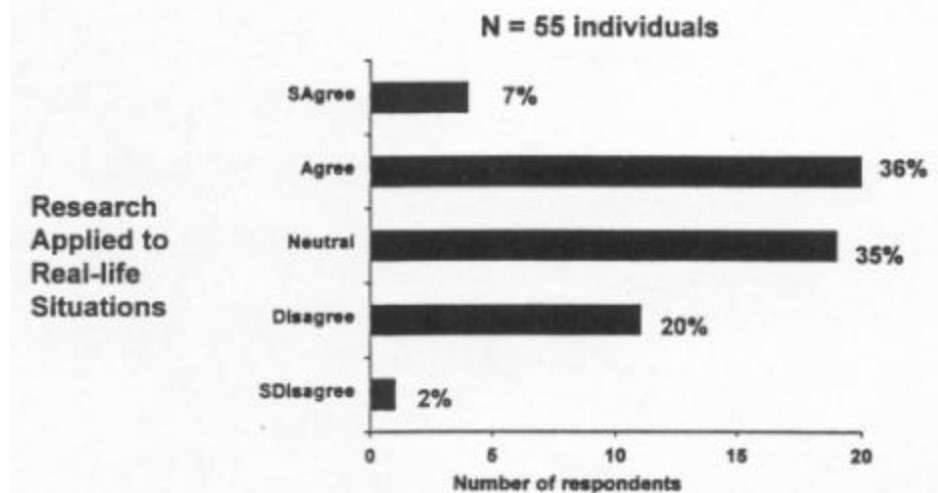
Seventy-eight percent either strongly agreed or agreed with this statement, 22% were less satisfied.



Respondents were asked if the panel presentations were understandable and if the research presented was applicable to real-life situations. Figure 10 shows that the majority of respondents (87%) either strongly agreed or agreed that the presentations were understandable, only 13% were neutral or disagreed. When asked about the applicability to real-life situations, 35% were neutral (they neither agreed nor disagreed with this statement), while 22% either disagreed or strongly disagreed. Forty-three percent either agreed or strongly agreed that the research applied to real-life situations (see Figure 11).

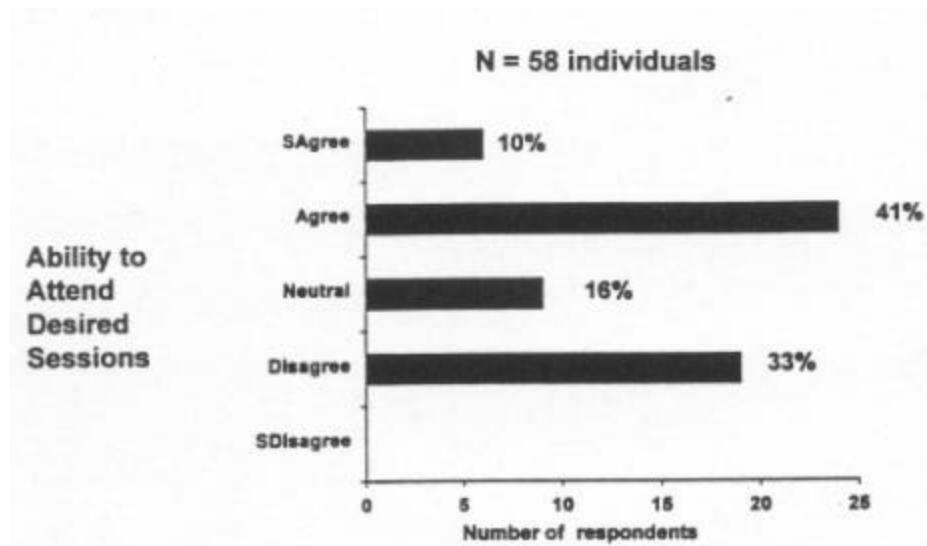


**Figure 10**

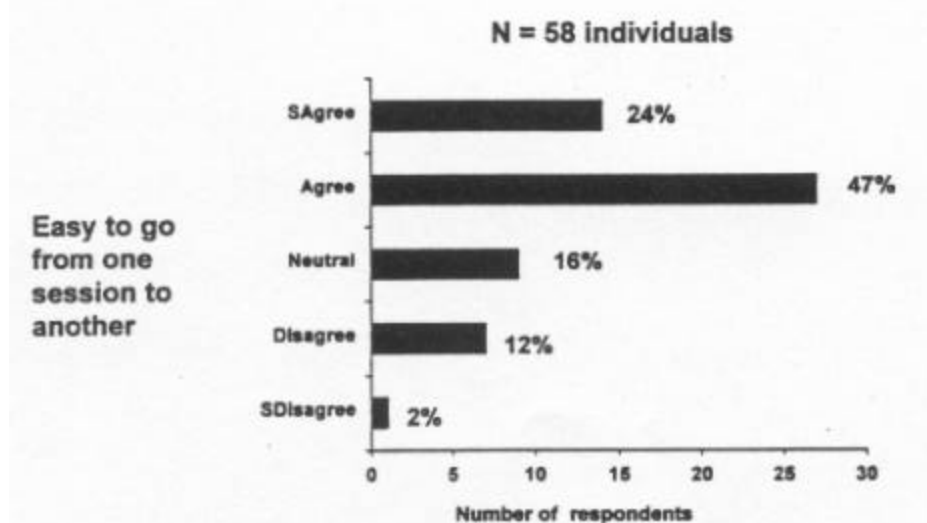


**Figure 11**

Figures 12 and 13 illustrate the results obtained from statements regarding ability to attend the desired sessions and the ease of moving from one session to another. Fifty-one percent of the respondents agreed or strongly agreed that they were able to attend the sessions they desired, 16% were neutral, and 33% disagreed with this statement (see Figure 12). When asked about the ease of going from one session to another (see Figure 13), the majority (91%) of respondents either strongly agreed or agreed. Two percent strongly disagreed and 28% were neutral or disagreed with this statement.



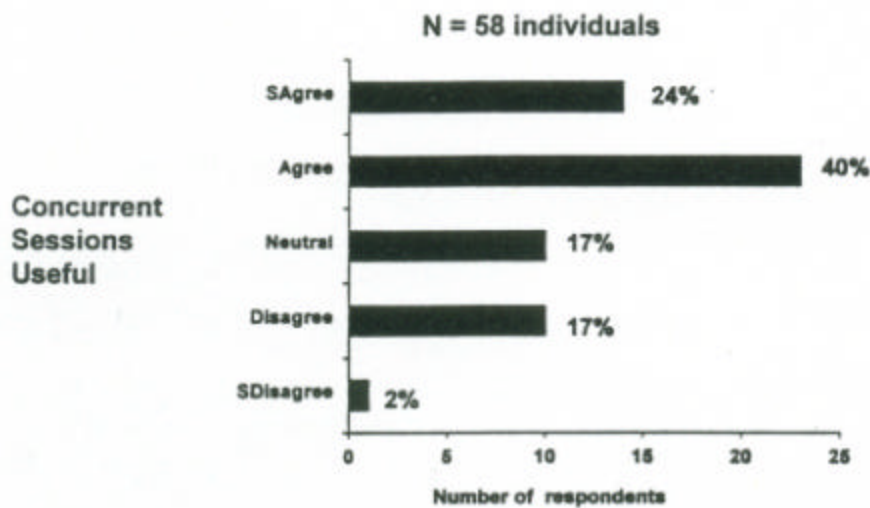
**Figure 12**



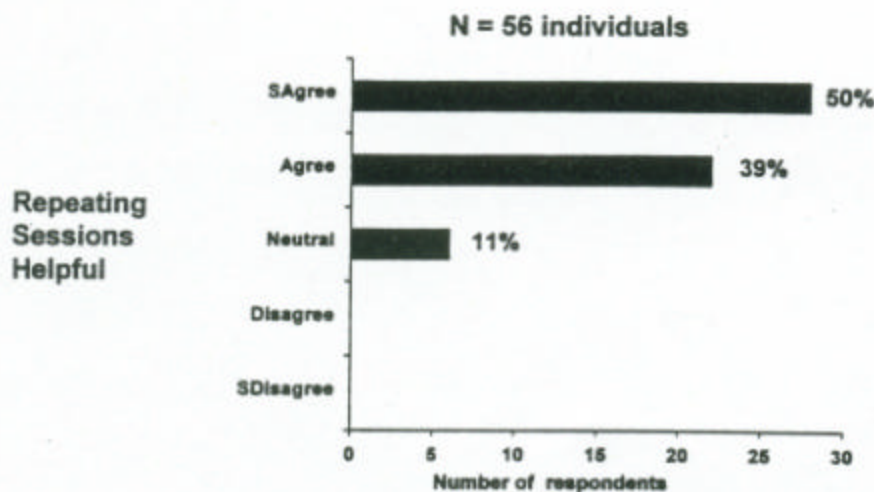
**Figure 13**

Attendees were then asked how they felt about concurrent sessions and repetition of sessions.

Figure 14 shows how respondents felt about the usefulness of concurrent sessions. Twenty-four percent strongly agreed that concurrent sessions were useful, 40% agreed that this was the case, 17% were neutral, 17% chose to disagree, and 2% strongly disagreed that concurrent sessions were useful. Repeating sessions (see Figure 15) was helpful to a majority of the respondents: 50% strongly agreed, 39% agreed, and the remaining 11 % were neutral.



**Figure 14**



**Figure 15**

## Methods for communicating science

When asked to rate (with 1 being the most preferred and 5 the least) whether electronic mail/news group, newspaper articles, scientific journal articles, symposia, or other methods were preferable for communicating science, 42% of those responding indicated that symposia were the most preferred method. Forty-six percent preferred the "Other" category. Suggested "other" methods of communication included public television and radio, newsletters, face-to-face interaction, local meetings, grassroots organizations, and mailings. Of those that responded, results suggest that electronic mail/news group was the next preferred method for communicating science. Newspaper and scientific journal articles seem to be equally weighted in terms of the preferred method for communicating science. It must be cautioned that this list was not exhaustive. Five respondents indicated that they were not sure what was meant by communicating science. They were unclear as to whom science was being communicated to, whether it was to themselves or others. Table 1 illustrates these results:

Method for communicating science	Most Preferred 1	2	3	4	Least Preferred 5	Number of individuals responding
Electronic mail/news group	8%	14%	39%	31%	8%	49
Newspaper article	13%	25%	29%	23%	10%	52
Scientific journal articles	6%	18%	26%	28%	22%	50
Symposium	42%	40%	10%	6%	2%	52
Other	46%	33%	13%	0%	8%	24

**TABLE 1**

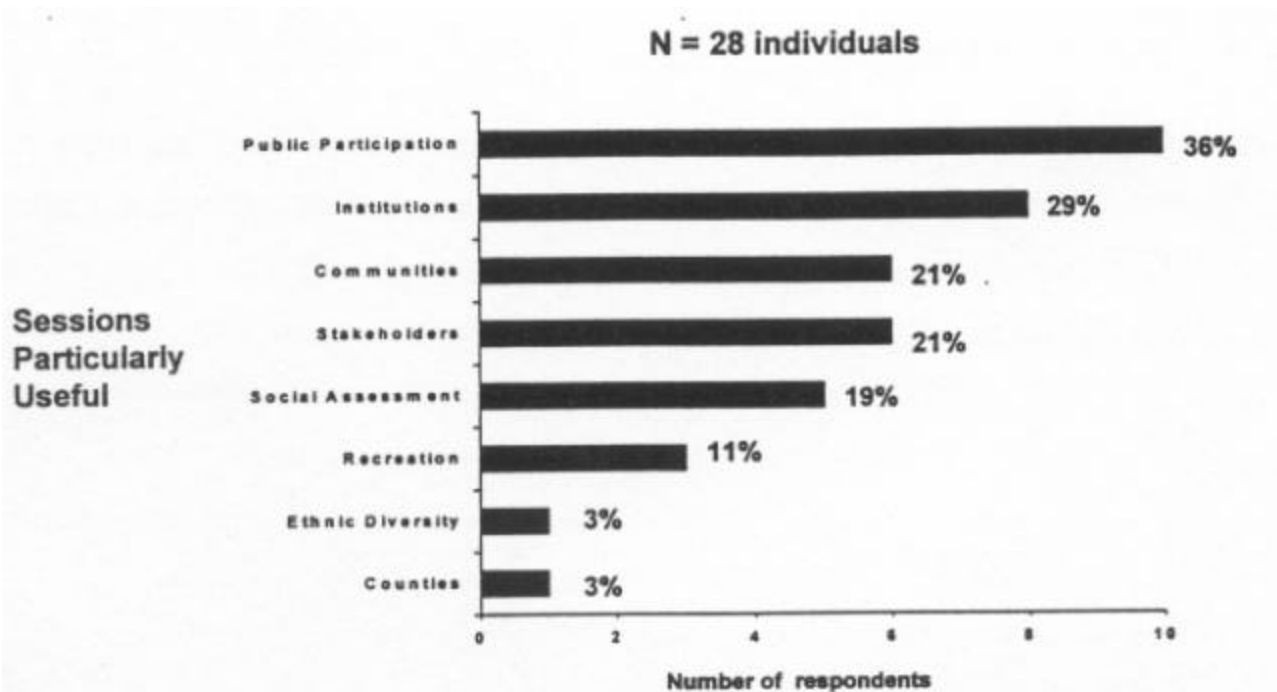
Percentages may not equal 100 due to rounding, respondents giving similar values to different methods of communication, and differing total number of individuals responding.

### Interesting panel discussions

Most respondents (54 of the 56 who responded, or 96%) felt that the panel discussions were interesting. When asked why, the comments ranged from "lots of good points were brought up about things that need to be considered," "hear academic perspectives," "focused on mutual input of public and government," "the researchers let us know what they were doing," and "someone is finally beginning to realize that public education and input is the only way we will accomplish any substantive progress in resource management."

### Sessions particularly useful

Of the 58 attendees who responded to this question, 48% (28) felt that the following panel discussions were particularly useful (see Figure 16):



**Figure 16**

Several respondents indicated more than one session was particularly useful, so the total percentage is greater than 100.



**Communicating the implications of ecosystem management**

When asked if they felt that the symposium was a useful forum for communicating the social implications of ecosystem management, 39 of the 47 who responded (83%) indicated that it was a useful forum. Eight (17%) felt that it was not. Some of the reasons why it was not useful were: the need to adequately define 'ecosystem', include the biological sciences, make the implications more clear, and illustrate how the research fits into the larger ICBEMP Environmental Impact Assessment. Some felt the presentations were too conceptual.

## **DISCUSSION**

Were the objectives of the symposium met? The evaluations suggest that the information exchange was well received but the applicability of this research to real-life situations was not as apparent to those who responded. Evaluation results also indicate that the ICBEMP may need to clarify how the social assessment efforts fit into the larger planning efforts of ecosystem management (see attached evaluations).

## **RECOMMENDATIONS**

Overall, the organization, schedule, location, and content of the symposium were fairly well received. The evaluation results suggest the following recommendations for a symposium on the social implications of ecosystem management:

- 1 .      Symposia such as this should clearly define what the social implications are to ecosystem management.
2.      Scientists making presentations should apply their research to real-life situations.
3.      The date of the symposium should be determined at least six months in advance to allow for adequate time for arranging a good facility.
4.      Advance notification of at least three months should be given to the presenters to ensure their presence. Two months advance notice would be preferable for inviting the stakeholders.
5.      The location should be central to the stakeholders so that it is more convenient to their needs.

## **EVALUATIONS**

Interior Columbia Basin Ecosystem Management Project  
Symposium on the Social Implications of Ecosystem Management

### EVALUATION FORM

The ICBEMP would like to know how you felt about the symposium, and if it was an effective way of disseminating information about the social implications of ecosystem management. Your opinion is important. Your response will be shared with the ICBEMP staff to assist them in their planning process. In order to maintain confidentiality, please do not put your name on this form.

Please rate the following statements by circling the number associated with the most appropriate response.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
<b>1. <u>Schedule and Location</u></b>					
The date was convenient.	1	2	3	4	5
There was adequate advance notification of the event.	1	2	3	4	5
Spokane was an appropriate location for the Symposium.	1	2	3	4	5
<b>2. <u>Organization</u></b>					
The symposium was well organized.	1	2	3	4	5
There was enough space in the meeting rooms.	1	2	3	4	5
You could you hear the presentations.	1	2	3	4	5
The registration packet was helpful.	1	2	3	4	5
<b>3. <u>Content</u></b>					
The objective of the symposium was made clear.	1	2	3	4	5
The agenda was clear and concise.	1	2	3.	4	5
The panel presentations were understandable.	1	2	3	4,	5
The research was applied to real-life situations.	1	2	-3.	4	5
You were able to attend the sessions you wanted.	1	2	3	4	5
It was easy to go from one session to another.	1	2	3	4	5
The concurrent sessions were useful.	1	2	3	4	5
Repeating sessions was helpful.	1	2.	3	4	5

*In order to evaluate other facets of the symposium please circle or write your response or comment below.*

4. Please rate the following methods of communicating science with (1) being the most preferred and (5) the least preferred:

- \_\_\_\_\_ Electronic mail/news group  
 \_\_\_\_\_ Newspaper article  
 \_\_\_\_\_ Scientific journal article  
 \_\_\_\_\_ Symposium  
 \_\_\_\_\_ Other: (please describe)\_\_\_\_\_

5. Were the panel discussions interesting?      Yes      No

Why? \_\_\_\_\_

\_\_\_\_\_

6. Did you find any sessions particularly useful? Which ones? \_\_\_\_\_

\_\_\_\_\_

Why/Why Not? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. Do you think that the symposium was a useful forum for communicating the social implications of ecosystem management?    Yes    No

Why/Why Not? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8. Are there any other comments you would like to add? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Thank you for taking the time to complete this form. Please place it in the box located on the registration table outside Empire C conference room.*

If you would like a copy of these results, please give your name and address to Kathy Rose, Conference Coordinator.

## **APPENDIX**

# AGENDA

## SYMPOSIUM ON THE SOCIAL IMPLICATIONS OF ECOSYSTEM MANAGEMENT

### SATURDAY, APRIL 29, 1995

#### SATURDAY

10:00-10:30 a.m.	<b>OPENING SESSION</b>	Empire C Room, 1st Floor, Executive Court
	Welcome:	Dr. Jim Burchfield, Social Assessment Team Leader Interior Columbia Basin Ecosystem Management Project
	Remarks:	Dr. Tom Quigley, Science Team Leader Interior Columbia Basin Ecosystem Management Project
	Logistics:	Kathy L. Rose, Conference Coordinator University of Idaho
10:30-10:45 a.m.	<b>BREAK</b>	Room 335, Main Hotel
10:45-11:45 a.m.	<b>SESSION A</b>	University Room, 2nd Floor, Main Hotel
	<i>Communities Panel and Dialogue:</i>	
	Presentation: (10:45-11:15 a.m.)	"Assessing the Characteristics and Conditions of Rural Communities in the Interior and Upper Columbia Basins: An Intensive, Region-wide Survey of the Past and Present"
		Dr. Chuck Harris, Resource, Recreation and Tourism University of Idaho
		Dr. Bill McLaughlin, Resource, Recreation and Tourism University of Idaho
		Dr. Greg Brown, Computer Services University of Idaho
	Public Dialogue, led by moderator (11:15-11:45 a.m.)	
10:45-11:45 a.m.	<b>SESSION B</b>	Cougar Room, 3rd Floor, Main Hotel
	<i>Stakeholders Panel and Dialogue:</i>	
	Presentation: (10:45-11:15 a.m.)	"Communities of Interest and Their Social Values"
		Eric Hovee, Private Consultant E.D. Hovee & Company
	Public Dialogue, led by moderator (11:15-11:45 a.m.)	

10:45 a.m.-12:15 p.m.    **SESSION C**    Empire C Room, 1st Floor, Executive Court

*Counties Panel and Dialogue,*

Presentation:    "Social Indicators for Ecosystem Management"  
(10:45-11:15 a.m.)

Dr. Gary E. Machlis, Forest Resources and Sociology  
University of Idaho

Dr. Jo Ellen Force, Forest Resources  
University of Idaho

Presentation:    "An Atlas of Social Indicators for the Upper Columbia  
(11:15-11:45 a.m.)    River Basin"

Dr. Jo Ellen Force, Forest Resources  
University of Idaho

Dr. Gary E. Machlis, Forest Resources and Sociology  
University of Idaho

Jean E. McKendry, Geography Visiting Instructor  
Middlebury College

Emma Ansara, Justin Douglas, and Steve Engle  
Students, Middlebury College

Public Dialogue, led by moderator  
(11:45 a.m.-1 2:15 p.m.)

10:45 a.m.-12:15 p.m.    **SESSION D**    Terrace C Room, Mezzanine, Main Hotel

*Recreation Panel and Dialogue:*

Presentation:    "Assessment of Natural Resource-Based Recreation in the  
(10:45-11:15 a.m.)    Interior Columbia Basin"

Amy Molitor  
Private Consultant

Presentation:    "Places, Scenery, and Recreation"  
(11: 15-11:45 a.m.)

Steve Galliano, Landscape Architect  
Interior Columbia Basin Ecosystem Management Project

Gary Loeffler, Landscape Architect  
Mt. Hood National Forest, Zig Zag Ranger District

Public Dialogue, led by moderator  
(11:45 a.m.-1 2:15 p.m.)

12:15-1:15 p.m.    **LUNCH ON YOUR OWN**



1:15-2:15 p.m.      **SESSION E**      Cougar Room, 3rd Floor, Main Hotel

*Overview of Social Assessment Techniques Panel and Dialogue:*

Presentation:      "Pursuing Social Assessment for the Interior Columbia  
(1:15-1:45 p.m.)      Basin Ecosystem Management Project: Challenges and  
Opportunities"

Dr. Richard S. Krannich, Sociology  
Utah State University

Dr. Mathew S. Carroll, Natural Resources  
Washington State University

Public Dialogue, led by moderator  
(1:45-2:15 p.m.)

1:15-2:45 p.m.      **SESSION F**      Empire C Room, 1st Floor, Executive Court

*Institutions Panel and Dialogue:*

Presentation:      "Implications of the Contemporary Social and Political  
(1:15-1:45 p.m.)      Environment for Ecosystem Management"

Dr. Margaret Shannon, Forest Resources  
University of Washington

Alex Antypas, Forest Resources  
University of Washington

Presentation:      "Institutional and Legal Barriers to Ecosystem  
(1:45-2:15 p.m.)      Management"

Dan Schlager, Attorney and Research Assistant  
University of Montana

Dr. Wayne Freimund, Forestry  
University of Montana

Public Dialogue, led by moderator  
(2:15-2:45 p.m.)

1: 15-2:45 p.m.      **SESSION G**      University Room, 2nd Floor, Main Hotel

*Ethnic Diversity Panel and Dialogue:*

Presentation:      "Ethnic Minorities and the Use of Public Lands in the  
(1:15-1:45 p.m.)      Interior Columbia Basin"

Dr. Richard Hansis, Anthropology  
Washington State University at Vancouver

Presentation:      "American -Indian Interests in the Columbia Basin"  
(1:45-2:15 p.m.)

Dr. Richard Hanes, Anthropologist  
Bureau of Land Management

Public Dialogue, led by moderator  
(2:15-2:45 p.m.)

1:15-2:45 p.m.      **SESSION H**      Terrace C Room, Mezzanine, Main Hotel

*Counties Panel and Dialogue* (repeat):

Presentation:      "Social Indicators for Ecosystem Management"  
(1:15-1:45 p.m.)

Dr. Gary E. Machlis, Forest Resources and Sociology  
University of Idaho

Dr. Jo Ellen Force, Forest Resources  
University of Idaho

Presentation:      "An Atlas of Social Indicators for the Upper Columbia River  
(1:45-2:15 p.m.)      Basin"

Dr. Jo Ellen Force, Forest Resources  
University of Idaho

Dr. Gary E. Machlis, Forest Resources and Sociology  
University of Idaho

Jean E. McKendry, Geography Visiting Instructor  
Middlebury College

Emma Ansara, Justin Douglas, and Steve Engle  
Students, Middlebury College

Public Dialogue, led by moderator  
(2:15-2:45 p.m.)

2:45-3:00 p.m.      **BREAK**      Room 335, Main Hotel

3:00-4:00 p.m.      **SESSION I**      University Room, 2nd Floor, Main Hotel

*Communities Panel and Dialogue* (repeat):

Presentation:      "Assessing the Characteristics and Conditions of Rural  
(3:00-3:30 p.m.)      Communities in the Interior and Upper Columbia Basins: An  
Intensive, Region-wide Survey of the Past and Present"

Dr. Chuck Harris, Resource, Recreation and Tourism  
University of Idaho

Dr. Bill McLaughlin, Resource, Recreation and Tourism  
University of Idaho

Dr. Greg Brown, Computer Services  
University of Idaho

Public Dialogue, led by moderator  
(3:30-4:00 p.m.)

3:00-4:30 p.m.      **SESSION J**      Empire C Room, 1st Floor, Executive Court

*Public Participation Panel and Dialogue*

Presentation:      "Learning-Based Public Participation"  
(3:00-3:30 p.m.)

Dr. Steven E. Daniels, Forest Resources  
Oregon State University

Dr. Gregg Walker, Speech Communications  
Oregon State University

Presentation:      "The Principles and Processes of Public Involvement: A  
(3:30-4:00 p.m.)      State-of-the-Art Synthesis for Agencies Venturing Into  
Ecosystem Management"

Dr. Ed Krumpe, Resource, Recreation and Tourism  
University of Idaho

Paul Cowles, Resource, Recreation and Tourism  
University of Idaho

Lynn McCoy, Resource, Recreation and Tourism  
University of Idaho

Public Dialogue, led by moderator  
(4:00-4:30 p.m.)

3:00-4:30 p.m.      **SESSION K**      Terrace C Room, Mezzanine, Main Hotel

*Institutions Panel and Dialogue (repeat):*

Presentation:      "Institutional and Legal Barriers to Ecosystem Management"  
(3:00-3:30 p.m.)

Dan Schlager, Attorney and Research Assistant  
University of Montana

Dr. Wayne Freimund, Forestry  
University of Montana

Presentation:      "Implications of the Contemporary Social and Political  
(3:30-4:00 p.m.)      Environment for Ecosystem Management"

Dr. Margaret Shannon, Forest Resources  
University of Washington

Alex Antypas, Forest Resources  
University of Washington

Public Dialogue, led by moderator  
(4:00-4:30 p.m.)

4:30-5:00 p.m.      **CLOSING SESSION**      Empire C Room, 1st Floor, Executive Court

Remarks:      Dr. Jim Burchfield, Social Assessment Team Leader  
Interior Columbia Basin Ecosystem Management Project

# **The Interior Columbia Basin Ecosystem Management Project**

## ***SYMPOSIUM ON THE SOCIAL IMPLICATIONS OF ECOSYSTEM MANAGEMENT***

**Saturday, April 29, 1995**

**Ridpath Hotel  
Spokane, Washington**

### ***ABSTRACTS OF PRESENTATIONS***

Abstracts are provided in order to summarize the studies' research and results, assist in making a choice of presentations to attend during the symposium, and allow for an opportunity to share this information with others who could not attend.

## **SESSION A                      Communities Panel**

**Presentation Title:            "Assessing the Characteristics and Conditions of Rural Communities in the Interior and Upper Columbia Basins: An Intensive, Region-wide Survey of the Past and Present"**

**Authors:**                      Dr. Chuck Harris  
                                         Dr. Bill McLaughlin  
                                         Dr. Greg Brown

### **1. Description of research and results:**

Our research assesses the current characteristics and conditions of the approximately 400 small rural communities (incorporated towns less than 10,000 in population) in the Interior and Upper Columbia River Basins. Recent changes in the demographic, social, and economic attributes of these towns (between 1980 and 1990) are being documented with US Census data. In addition, an in-depth assessment of a representative sample of 200 of the communities has collected detailed, data on perceived characteristics and conditions in each community, including the attractiveness of the town and its region, the economic diversity and resource dependence of the town, its attractiveness for new businesses, the location and quality of the services available in the town, its quality of life, and the towns' social cohesion, community leadership, and preparedness for the future.

Also, the research is gathering data on up-to-date conditions in the 200 communities, such as the number of building permits issued since 1990 and the current number and kinds of local groups, clubs, and organizations active in the town. In a fourth component of the research, we are collaborating with a regional economist, Hank Robison, on research to ascertain the economic base of all 400-some communities in 1992, in terms of the number of jobs in each town by industrial sector, with these data, we can assess the actual contributions of different industries in terms of the direct income they bring into each town. Finally, we are examining the approximately 130 communities in the region that have experienced significant change since 1980. We are also conducting in-depth case studies of these changes in ten communities to document the history of their development: the nature of these changes, the responses of the towns, and the impacts of these changes and responses on the communities' development. We are in the midst of analyzing the results of these studies, but we will report some initial, tentative findings suggested by our preliminary analysis.

### **2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:**

The results will help (1) enable scientists on the assessment team assess the impacts of different management alternatives on different types of communities, based on current community conditions and impacts of recent similar changes on those community types, and (2) assist team scientists place these impacts in a broader context of larger social trends and influences in the Inland Northwest.

### **3. Usefulness of research results to the stakeholders attending the Public symposium:**

The research process for the community assessment has already helped to bring community leaders together to discuss their communities and their recent development, and thus have been an agent of positive change. The results of the various studies also will help clarify the ramifications of different management alternatives for the different kinds of communities found in the Inland Northwest, many of which are experiencing significant social and economic changes. Finally, the data collected with the research will provide a rich and extensive knowledge-base for local, county, and state decision-makers to make better, more informed, and more constructive choices as they chart the future of the region into the 21st century.

<b>4. Discipline:</b>	Interdisciplinary	<b>Unit of analysis:</b>	Communities
	Economics		Ecosystems
	Geography		Individuals
	History		Markets
	Sociology		

## **SESSION B                      Stakeholders Panel**

Presentation Title:        **"Communities of Interest and Their Social Values"**

Authors:                      Eric Hovee  
                                      Jeanette Palfy  
                                      John Koleda

### 1. Description of research and results:

E.D. Hovee & Company has proved a report providing a preliminary review draft narrative description of social values and perspectives for several communities of interest potentially affected by the Interior Columbia Basin Ecosystem Management Project:

- |            |                                 |
|------------|---------------------------------|
| • Miners   | • Fishers                       |
| • Ranchers | • Quality of Life Migrants      |
| • Farmers  | • Visitors (recreation/tourism) |
| • Loggers  |                                 |

This listing by no means represents all communities of interest found in rural or urban areas of the Columbia River Basin. It does represent interests of those with close ties to the land (excepting Native Americans and farm laborers), as well as more recent in-migrants drawn to the land for what might be considered as non-economic quality of life reasons. Also not considered in this report are the values of many urban area residents and business owners in the Columbia River Basin, as well as perceptions of those who live outside and do not visit the Basin region.

The report provides a brief description of each community of interest together with a listing of pertinent social value considerations. This information is drawn from a variety of sources including:

- Contacts with representatives of public and private sector organizations in 15 counties conducted in June of 1994.
- An annotated list of references compiled for communities of interest also compiled initially as of June 1994 and subsequently updated.
- Previous project experience of the consulting firm E.D. Hovee & Company on similar assignments involving social value analysis and/or community assessments in other western states--primarily Oregon and Washington.

It is noted that our research to date has uncovered surprisingly little detailed empirical analysis and documentation of the social values for the communities of interest most directly affected by management alternatives that may be considered for the Columbia River Basin. Consequently, many, though not all, of the observations offered by this report are based more on qualitative analysis including anecdotal accounts than on quantitative research.

### 2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

We will summarize results of research that have been conducted by E.D. Hovee & Company for the Interior Columbia Basin Ecosystem Management Project.

### 3. Usefulness of research results to the stakeholders attending the Public symposium:

Stakeholders who are included in the communities of interest covered by our review as well as those interested in socioeconomics of the Columbian Basin region are welcome to review and comment any aspect of our analysis--as conducted to date.

4. Discipline: Economics	Unit of analysis:	Communities
		Sociology

**SESSION C****Counties Panel**

Presentation Title: **"Social Indicators for Ecosystem Management"**

Authors: Dr. Gary E. Machlis  
Dr. Jo Ellen Force  
Shawn Dalton

### 1. Description of research and results:

Ecosystem management requires accurate and efficient assessment of current conditions within a management area. That includes the socioeconomic conditions of people living in the region. The purpose of this project was to research, develop, and propose a set of social indicators for assessing social conditions throughout the Interior Columbia Basin Ecosystem Management Project. Social indicators are statistics collected over time and used for policy and management. Social indicators have traditionally been used in many ways (the consumer price index is an example); their application to ecosystem management is new.

A technical paper was prepared. It reviews the literature on social indicators and discusses the strengths and weaknesses of social indicators. It then describes, in some detail, a human ecosystem model for ecosystem management. The model is important, for it provides a rationale for selecting specific social indicators. Next, a set of approximately 40 social indicators are proposed for use at the county level. These indicators are easily available, reasonably accurate, and useful in assessing conditions throughout the ICBEMP. The paper concludes with a set of recommendations as to how social indicators can be useful to citizens, managers, and decision-makers.

### 2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

The technical paper provides a rationale and specific methods for efficiently collecting and using social indicators for ecosystem management within the ICBEMP.

### 3. Usefulness of research results to the stakeholders attending the Public symposium:

The assessment of currently socioeconomic conditions is a critical part of developing ecosystem management plans that are ecologically possible, culturally and socially adoptable, and economically gainful. All stakeholders benefit from having access to current, accurate, and meaningful indicators of conditions--from educational levels to poverty rates to cultural values. These are "basic facts;" ecosystem decision-making can be more realistic, fair, and practical if it incorporates these facts.

4. Discipline:	Interdisciplinary	Unit of analysis:	Counties Ecosystems
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**SESSION C (cont.)      Counties Panel**

Presentation Title:      **"An Atlas of Social Indicators for the Upper Columbia Basin"**

Authors:                      Dr. Jo Ellen Force  
                                      Dr. Gary E. Machlis  
                                      Jean McKendry

1. Description of research and results:

This project consisted of the design and production of an atlas which displays county-level on 39 social indicators for the 57 counties of Idaho and western Montana. The selection of social indicators was based on the human ecosystem model developed in earlier work by Machlis, Force, and Dalton. The data were collected primarily from 1990 U.S. Census documents and other secondary data sources as necessary. The Atlas presents the data spatially using quartiles. The data are also displayed in rank order over all 57 counties. The Atlas was designed and produced by students in special cartography class at Middlebury College.

2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

This data set provides baseline data for monitoring social conditions in the Upper Columbia River Basin.

3. Usefulness of research results to the stakeholders attending the Public symposium:

The Atlas will be useful to citizens, managers, and decision-makers of the region for monitoring activities, including serving as an "early warning system;" comparative studies both within the region and between regions; social trend analysis; social impact assessment; and collaborative decision-making.

4. Discipline:	Interdisciplinary	Unit of Analysis:	Counties
	Cartography		Ecosystems
	Geography		



## **SESSION D                      Recreation Panel**

Presentation Title:        **"Assessment of Natural Resource Based Recreation in the Interior Columbia River Basin"**

Author:                      Amy Molitor

### 1. Description of research and results:

Participation in recreational activities can greatly alter the conditions of vegetation, soil, water, and wildlife present on the public lands of the Interior Columbia River Basin. Additionally, types of recreation user groups, the number of recreation users at a particular site, and resource conditions can significantly affect the quality of recreation experiences occurring within the Basin. Recreation may often bring substantial amounts of tourist dollars into a local economy; however, the presence and demands of visitors to an area may negatively affect the character of the location.

To assist land management agencies in making effective decisions for the future management of outdoor recreation within the Basin, it is necessary to assess the current recreation situation, past recreation trends, and the future of recreation in the Basin. To assess the current recreation situation, recreation participation data was obtained from 66 land management units (75% response rate) within the Basin. Results indicated that 84 million recreation visits occurred within the Basin in 1993. The major recreation activities included day use activities and viewing scenery from motor vehicles. Half the recreation visits to the Basin transpired in roaded, natural/roaded modified settings. Based on this use of data and IMPLAN analysis, it was estimated that recreation supported approximately 167,000 jobs within the Basin in 1993.

An examination of past recreation use data indicates that recreation participation has steadily increased over the past fifteen years in the Basin. Projections for future recreation participation suggests that the greatest demand will be for activities such as developed camping, family gatherings, bicycling, running/jogging, and outdoor pool swimming. The Basin should have an advantage over the nation as a whole for supplying recreation opportunities to the public, especially for those opportunities available within undeveloped or partially developed land settings. However, as population levels increase within the Basin, availability of recreation opportunities is expected to decline.

### 2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

A general description of outdoor recreation in the Basin should provide a portion of the background information necessary to develop an overall assessment of the social conditions in the Basin.

### 3. Usefulness of research results to the stakeholders attending the Public symposium:

The results of the recreation assessment should provide the public with a sound understanding of the current recreation situation, recreation trends, and future of recreation within the Basin.

4. Discipline:	Interdisciplinary	Unit of Analysis:	Ecosystems
	Economics		Public Land Mgt. Units
	Recreation		Regions

## **SESSION D (cont.)    Recreation Panel**

Presentation Title:        **"Places, Scenery, and Recreation"**

Authors:                      Steve Galliano  
                                     Gary Loeffler

### 1. Description of research and results:

Places are the physical areas within which people interact, whether or a few minutes or a lifetime. Peoples' perception of "places" or "place attachment" is often passed down through generations and becomes part of peoples' heritage. Artists, landscape architects, and architects are trained to think of places as being site-specific in scale and more intimate than the vast landscapes being assessed in the Interior Columbia River Basin. However, our work in the assessment project indicates that people have similar attachment that can be expressed for larger places at the community scale.

Scenery in the Social Assessment is composed of both landscape character and scenic condition. These two aspects of the visual resource are closely linked, but quite different. Landscape character is the general impression created by a landscape. It is based on the ecological and biophysical attributes of the natural landscape and often includes human alterations. Landscape character serves as a baseline for assessing future changes in the way an area looks. Scenic condition is a measure of current visual intactness, based on a set of standards established more than twenty years ago in the Forest Service's Visual Management System. Existing scenic condition is utilized as a baseline upon which various alternatives may be compared, each alternative having a different effect upon the current scenic condition.

### 2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

The results of the assessment work to date indicate that the Visual Management System (now called the Scenery Management System) and the importance of "Places" both have application at larger scales than originally considered likely. While additional research may be necessary to confirm these findings, it does appear that they are excellent approaches for an ecoregion assessment. Their application is explained in brief terms above.

### 3. Usefulness of research results to the stakeholders attending the Public symposium:

Participants will have a general understanding of the ways in which geographic areas within the Basin will be assessed in regard to their scenery and recreational opportunities. They will learn that the identification and meanings of places within the Basin are important considerations in this assessment. Participants will be informed of current conditions regarding these two components, which will later be used in the environmental impact statement process.

4. Discipline:	Scenery	Unit of Analysis:	Communities
	Place		Ecosystems

**SESSION E                      Overview of Social Assessment Techniques Panel**

Presentation Title:        **"Pursuing Social Assessment for the Interior Columbia Basin Ecosystem Management Project: Challenges and Opportunities"**

Authors:                      Dr. Richard S. Krannich  
                                      Dr. Mathew L. Carroll

1. Description of research and results:

This presentation will provide a brief overview of the major themes and principles of social assessment and their relevance to the Interior Columbia Basin Ecosystem Management Project. The presentation will begin with a discussion of the complexities that confront social assessment efforts in general. Attention will then turn to a consideration of the unique challenges and difficulties that confront an effort to conduct social assessment of this particular project, including the complexity of the region and its ecological and social-economic conditions, the extended time frame over which management actions might exert social effects, the multiple scales of analytic focus that need to be pursued, and the absence at this stage of the process of location-specific implementation proposals. The discussion will conclude with a set of observations and recommendations regarding the various forms of human communities, social organizations, and interests that should be considered in pursuing social assessment efforts for this type of project.

No other information provided.

**SESSION F****Institutions Panel**

Presentation Title: **"Implications of the Contemporary Social and Political Environment for Ecosystem Management"**

Authors: Dr. Margaret Shannon  
Alex Antypas

1. Description of research and results:

Our group was asked to address three problem areas for the Social Assessment Team, for which we developed three policy analysis papers. The first objective asked us to examine how the system of federalism affects the capacity of federal agencies to carry out ecosystem management. In response to this objective we developed a theoretical framework within which the structure of federalism could be understood. Models of democratic decision-making within a federalist system were compared for effects on the ability of agencies to manage resources on an ecosystem level. The second objective asked us to examine the theoretical and applied problems of institutional coordination in the natural resources arena. This paper consisted of an institutional analysis of multi-jurisdiction, multi-problem natural resource management situations in a ten case-comparative study. We found significant differences in outcome among the cases and identified structural characteristics of the processes that determined the outcomes. The final objective required that we study the causes of the widespread opposition to the Forest Service and the Bureau of Land Management. We used legitimacy as the central theoretical construct to examine opposition to natural resource management agencies. We argued that although legitimacy problems are built into democratic societies, many U.S. government agencies suffer from particularly acute legitimacy problems because of countervailing structural imperatives and constraints that are imposed on them. We used the Forest Service as a case example of how an agency has tried to adapt to and shape the environment in which it exists. Taken together, the three papers provide a broad theoretical and actual social and political context in which the Interior Columbia Basin Ecosystem Management Project can be considered.

2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

The purpose of our papers is to provide researchers with a set of theoretical tools with which to better assess their situation in the ICBEMP process. These tools are intended to lead to an enhanced capacity to act and successfully implement project goals in an uncertain social and political environment.

3. Usefulness of research results to the stakeholders attending the Public symposium:

- a. Places the ICBEMP in a broader social and political context.
- b. Points out complexity of resource decisions and decision-making context.
- c. As a result, provides a basis for discussion of ICBEMP in context.

4. Discipline:	Interdisciplinary Political Science Sociology	Unit of Analysis:	Communities Counties Individuals Markets Organizations Social Groups Social Systems
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## **SESSION F (cont.)      Institutions Panel**

Presentation Title:      **"Institutional and Legal Barriers to Ecosystem Management"**

Authors:                      Daniel B. Schlager, J.D., M.S.  
                                      Dr. Wayne A. Freimund

### 1. Description of research and results:

Recent conceptions of ecosystem management include both ecological and human components. Although natural resource professionals recognize the inherent difficulty in balancing environmental preservation with human development, none have gathered together the many specific barriers that must be overcome to successfully implement ecosystem management. Through interviews with 54 resource professionals including Forest Service Regional Social Science Coordinators, General Counsels, Regional and forest-level Ecosystem Management Coordinators, Forest Supervisors, District Rangers, Bureau of Land Management planners, non-governmental organizations, and private industry executives, this paper identifies twenty barriers to implementing ecosystem management.

Among others, the major institutional and legal barriers include the uncertainty of ecosystem management; the Federal Advisory Committee Act (FACA); artificial political boundaries and lack of interorganizational coordination; a perceived threat to private interests; institutional culture, attitudes, and structure; responding to multiple publics; the Endangered Species Act (ESA); the National Environmental Policy Act (NEPA); and the National Forest Management Act (NFMA). The list of barriers identified in this paper is not intended to be exhaustive. The list does, however, identify and organize some pervasive roadblocks to implementing ecosystem management. Although brief recommendations are offered to address the barriers, each of the barriers identified calls for a full-scale scientific analysis.

### 2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

Development and implementation of landscape scale resource management frameworks need to consider the complex organization systems management must be coordinated within. This research identified perceived barriers to coordination and implementation that result from the existing organizational structure of land management agencies and the laws that guide them.

### 3. Usefulness of research results to the stakeholders attending the Public symposium:

These results will assist stakeholders in framing the discussion about implementation of ecosystem management and prioritizing communication and managerial efforts within agencies.

4. Discipline:	Interdisciplinary Political Science	Unit of analysis:	Organizations
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## **SESSION G                      Ethnic Diversity Panel**

Presentation Title:            **"Ethnic Minorities and the Use of Public Lands in the Interior Columbia Basin"**

Author:                              Dr. Richard Hansis

### 1. Description of research and results:

Latinos and Southeast Asians make up the vast bulk of the new users of public lands. Since the 1940's, the former have moved into the Interior Columbia Basin, first as migrant workers in agriculture and then as 'settled out' residents. Many of the latter are still engaged in agricultural labor in the irrigated lands; others, especially children and grandchildren of the agricultural workers, have entered other occupations.

The farm, workers have little time and energy to be using the public lands for recreation. When they do use public lands, they have begun to harvest special forest products, especially beargrass and, even more recently, huckleberries, a trend that has accelerated in the last several years as knowledge of these products begin to spread. Second generation Latinos with occupational characteristics closer to that of the general population, have begun to use public lands for recreation, including camping, hunting, fishing, and to a lesser degree, hiking. Latinos use public lands less than the general population. If more information were available and as a larger number have time for leisure activities, utilization will increase. Southeast Asians, although small in number in the Interior Columbia Basin, come from outside the region, especially the Seattle-Tacoma area, to harvest special forest products. Prominent among these are mushrooms and beargrass. Intensive harvesting of these and other floral greens and medicinals can be expected.

### 2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

Public outreach efforts have to be expanded for non-traditional groups. Management for commodity values needs to include a wide variety of products.

### 3. Usefulness of research results to the stakeholders attending the Public symposium:

The research provides a fuller picture of present users of public lands and the likely demands on it for the future.

4. Discipline:                      Anthropology                      Unit of analysis:                      Communities

## **SESSION G (cont.) Ethnic Diversity Panel**

Presentation Title: **"American Indian Interests in the Columbia Basin"**

Author: Dr. Richard C. Hanes

### 1. Description of research and results:

American Indians in the Interior Columbia Basin pose a very different perspective of what nature is, the role of humans on the landscape, how science should be applied, and use of ecosystem concepts. Interests of the tribes are firmly rooted in legal history prior to the creation of the United States, as now expressed in treaties, statutes, regulations, and case law. These interests focus on the land, water, and native vegetation and wildlife and their relevance to the health of tribal communities, both socially and economically. Specific issues related to these interests are described and potential means for measuring the posed effects of management strategies on Indian interests are explored. Key issues include Federal land tenure actions, water quality and quantity, fishery habitats, occurrence of and access to a broad range of native plant species, big game habitat management, harvestable levels of fish and other species, maintenance of a government to government working relationship between agencies and tribes, full recognition of tribal sovereignty, and fulfillment of agency trust responsibilities.

### 2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

Land, water, and a broad range of native plant and animal species form the basis of tribal interests. These involve resource values being assessed by other project teams, including aquatic and terrestrial biology, landscape ecology, economics, and geographic information systems. The project also presents a major opportunity to build government to government working relationships between Federal agencies and tribes in the region and to better define agencies' trust roles.

### 3. Usefulness of research results to the stakeholders attending the Public symposium:

The study describes resource interests of Indian tribes in the region and establishes a partial basis for determining resource use allocations for public lands. The pervasiveness of tribal interests in land, water, and resources has implications for all stakeholders.

4. Discipline:	Anthropology	Unit of analysis:	Communities
	Economics		Organizations.
	Geography		
	History		

## SESSION J                      Public Participation Panel

Presentation Title:            **"Learning-Based Public Participation"**

Authors:                         Dr. Steven E. Daniels  
                                        Dr. Gregg B. Walker

### 1. Description of research and results:

This project addresses public participation in agency decision-making. We recognize that public participation and social assessment are closely allied activities that can operate synergistically to improve the implementability of agency decisions. This project goes through several steps to explain how public participation has evolved and how it can be linked to social assessment. First, we provide a brief overview of our definition of public participation, followed by two reasons why public involvement is commonly undertaken. Second, we discuss both the advantages and disadvantages of traditional public participation, and review research findings to determine the net effect of public participation activities on agency function and external relationships. Third, we explain how public participation can be improved by recognizing: (1) that it is a form of negotiation to which the environmental dispute resolution literature has much to offer, and (2) that the technical and social complexity of ecosystem-based management strategies create a need for an enhanced learning emphasis in public participation activities. We subsequently address the importance of learning in public deliberation and principles behind learning-based public participation. Following our discussion of learning, we outline two collaborative decision-making frameworks that offer a considerable learning opportunity. We concluded by returning to our consideration of social assessment as both providing benefit to, and benefitting from, learning-based public participation.

### 2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

Given the complexity of the Interior Columbia Basin Ecosystem Management Project's situation, public participation methods need to be innovative and inclusive, responding to the needs of both the public and the agencies. The learning-based approaches we present offer examples of innovative ways to involve the public.

### 3. Usefulness of research results to the stakeholders attending the Public symposium:

Stakeholders will be presented with innovative methods for public involvement. They will be invited to discuss their concerns and share their experiences with public involvement/participation.

4. Discipline:	Political Science	Unit of analysis:	Communities
	Psychology		Ecosystem
	Sociology		Individual
	Interdisciplinary		Organizations
	Communication		Social Groups
	Education		
	Conflict Management		
	Negotiation		
	Dispute Resolution		



**SESSION J (cont.)    Public Participation Panel**

Presentation Title:       **"The Principles and Processes of Public Involvement: A State-of-the-Art Synthesis for Agencies Venturing Into Ecosystem Management"**

Authors:                   Dr. Ed Krumpe  
                                 Paul Cowles  
                                 Lynn McCoy

1. Description of research and results:

Today we are faced with the challenge of both developing a working definition of sustainability and implementing this philosophy into our communities. The ability to maintain a healthy environment and economy, integrate scientific and technical knowledge, and pursue a participatory democracy lies at the heart of achieving a sustainable ecosystem. This paper outlines critical elements that should be included in public involvement programs as agencies implement ecosystem management. Imperative to any program is an understanding of the human values, motivations, and paradigms of the citizenry as well as an understanding of the dynamics of relationships and the structures surrounding government and public interaction. Furthermore, successful integration of the public into the decision-making environment requires building and maintaining trust and cooperation between government agencies, private interests, and the public. This is best accomplished by learning and implementing the basic principles of public involvement which serve as a useful guide to foster citizen participation. Finally, consideration is given to the different geographic scales of decisions federal agencies must consider, including ecosystem, regional, and local programmatic public involvement.

2. Application of research results to the Interior Columbia Basin Ecosystem Management Project:

Presents a framework for public involvement at the ecosystem management level.

3. Usefulness of research results to the stakeholders attending the Public symposium:

Provides information on state-of-the-art approaches to public involvement in natural resource management.

4. Discipline:	Interdisciplinary	Unit of analysis:	Communities Ecosystems Individuals Organizations
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**Interior Columbia Basin Ecosystem Management Project  
Symposium on the Social Implications of Ecosystem Management  
Saturday, April 29, 1995**

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ELECTRIC MTR #:

WATER MTR #:

BUILDING STRUCTURE:

INSULATION:

GLAZING: